

Could AT&T Prevent Falls Among the Elderly?

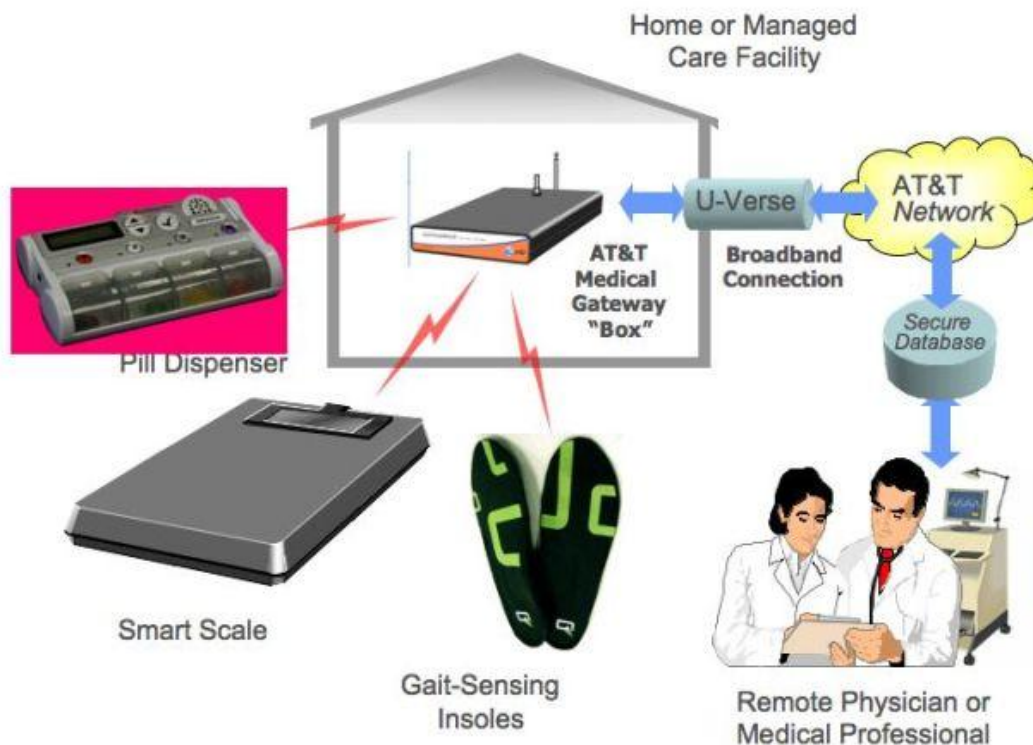
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http://www.businessweek.com/innovate/next/archives/2009/05/how_att_could_p.html

AT&T may be best known today for the iPhone, but the telecom company is up to some fascinating research that could expand its wireless business. AT&T is experimenting with telehealth devices and a communications network that might reduce falls in the home, a major cause of death among the elderly. Roughly speaking one of three people over 65 fall each year. Almost a third of these accidents require medical treatment, and 10% result in serious injury or death. Managed-care environments, like nursing homes, experience about a fall a day among residents.

AT&T is testing shoe insoles with built-in sensors that take gait, stride, and pace measurements as patients walk. The measurements are beamed wirelessly to a modem-like gateway box that's connected to a health-care network via the Internet. AT&T's scientists are hoping that by catching changes in a patient's walking pattern, the software can alert doctors to a problem before they take a tumble.



The devices are currently being tested in labs at Texas Tech University in Lubbock, Texas. Scientists at AT&T say that so far, the technology is working well. The project is being headed up by Robert Miller, executive director of AT&T's communications-technology research department, who worked on the team that developed the company's Wi-Fi technology. The "telesoles," as they call them, use ZigBee wireless. It's a network technology akin to Bluetooth, but with a much stronger signal that requires less power for transmission, which means the batteries last longer.



Note: Gait-Sensing
Insoles provided by:

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AT&T's financial interest isn't in the devices themselves, but the network they'll run on. AT&T, of course, is a communications company. It makes money from customers using the network, not by selling physical products. Recall the company's partnership with Apple: AT&T isn't actually selling the iPhone, just the network it runs on. The company is hoping its new technology can be integrated with its U-verse network as part of a package deal with phone, cable, and the Internet--a sort of one-stop home communications shop.

Other companies are testing completely different devices on the network at the Texas Tech trials, too. The researchers won't name names, but they say the devices are taking measurements from different parts of the body and all of them are running on AT&T's network simultaneously. These could be devices that measure pulse, temperature, blood sugar, blood pressure, or respiration.

Now, don't strap on your jet pack to head down the pharmacy to pick a pair of shoe insoles just yet. These are experimental devices. Also, tons of data will have to be collected, analyzed, tested before patterns begin to emerge. Being able to obtain these measurements, though, is pretty good "step" in that direction.
